REMARKS

Claims 6-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lill et al. in view of McLane et al. Applicant respectfully traverses this rejection, because the cited references, even if combined, still would not disclose or suggest the first wire connecting any two phases where the ends of the two phases are neutral. The present invention also includes a disconnection in the first wire between any two phases where the ends of the two phases are both not neutral.

The Lill et al. reference relates to a stator for a stepper motor including a core having a number of coils. The Lill et al. reference teaches that each coil is wound using a continuous winding process in which the continuous wire is routed through a housing after each coil has been wound (see Figs. 9-11 and col. 5, lines 19-55). Once the wire has been wound around each of the coil supports, the wire is cut "wherever it extends to or from an outwardly directed sidewall 34 of a housing" (col. 5, lines 62-65). The result is shown in Figs. 12 and 14, where a disconnection exists between any two phases, regardless of whether the ends of the phases are neutral. The Lill et al. reference further teaches that lead wires 96 are connected to each end of all the coils at the housings (see col. 6, lines 8-14 and Figs. 1 and 12).

In the present invention, a disconnection in the first wire used for winding the coils exists only between any two phases where the ends of the two phases are both not neutral ends. However, the first wire connects any two phases where the respective ends of these phases are neutral ends. In other words, a disconnection in the wire does not exist between all phases in the present invention, as is required in Lill et al.

The McLane, Jr. reference cited as teaching the claimed second wire for connecting the neutral ends of the different phases. Even assuming that the McLane, Jr. reference does disclose the teachings asserted by the Examiner, the combination of McLane, Jr. and Lill et al. still would not disclose or suggest the first wire connecting any two phases where respective ends of the two phases are neutral. For these reasons, claims 6-13 are believed to be allowable.

New claims 14 and 15 describe a stator including, among other things, an insulator attached to the end of a stator and having a plurality of slits for preventing the wire from any of the phases from coming in electrical contact with each other. The new claim 14 incorporates features described in original claims 7 and 8, which are rejected over Lill et al. Applicant respectfully traverses this rejection because the cited reference simply does not disclose or suggest this feature of the invention.

The Examiner cites the coil wire-admitting slots 44, 46 and the lead wire-admitting slot 52 as disclosing the claimed slits. While the wire-admitting slots of Lill et al. appear to have different depths, they are not for the purposes of preventing the wire from different phases from coming in electrical contact with each other. In fact, these slots are provided to electrically connect the lead wire with the coils. The coil wire-admitting slots 44, 46 are connected together to receive the same wire (see col. 5, lines 29-34 and Figs. 1, 6 and 10). The coil wire in the coil wire-admitting slots 44, 46 are then electrically connected to the lead wire 96 inserted in the lead wire-admitting slot 52 via the electrically conductive terminals 54 (see col. 6, lines 8-14 and Fig. 1).

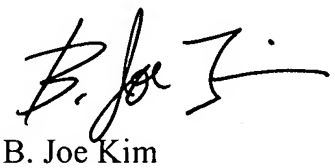
The claimed slits of the present invention are shown in Figs. 7 and 8 of the application and solve the problem of the coils of the different phases coming in electrical contact with each other. In contrast, Lill et al. teaches that the continuous wires are actually routed through a recess 39 at the base of each of the housings. Therefore, the portions of the wire from different phases come in electrical contact with each other. This is not a concern for a low voltage stepper motor disclosed in the Lill et al. reference. In contrast, the present invention is directed to a high voltage motor which would result in a catastrophic failure if the wires of the different voltages should come in contact with each

other, except at the neutral ends. For these reasons, new claims 14-16 are also believed to be allowable over Lill et al., alone or in combination with McLane, Jr.

For all of the above reasons, Applicant requests reconsideration and allowance of the claimed invention. The Examiner should contact Applicant's undersigned attorney if a telephone conference would expedite prosecution.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By 

B. Joe Kim
Registration No. 41,895

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Suite 2500
300 South Wacker Drive
Chicago, Illinois 60606
(312) 360-0080
Customer No. 24978